S/M Code No. 0095 DATE OF ISSUE 5/1992 - I

aiwa

HS-T29
HS-T29W
HS-T290W

SERVICE MANUAL

STEREO RADIO CASSETTE PLAYER

• BASIC TAPE MECHANISM : 0ZM – 2 • TYPE. Y

[PRELIMINARY]

TENTATIVE USE ONLY

AIWA CO.,LTD. Tokyo Japan

Printed in Japan

SPECIFICATIONS

Frequency range:	FM: 87.5-108 MHz AM: 530-1705 kHz (HS-T33W, HS-T29W) 530-1605 kHz (HS-T33, HS-T29)
Maximum output:	20mW + 20mW (EIAJ/16Ω) 15mW + 15mW (EIAJ/32Ω)
Power source:	Battery DC 3V, R6P (LR6, SUM-3, AA) X 2 Domestic AC power (using optional AC adaptor: AIWA AC-620)
Battery life:	Using manganese batteries (R6P, SUM-3, AA) Approx. 4 hours (EIAJ, 1mW output, playback mode) Using alkaline batteries (LR6, AM-3, AA) Approx. 8 hours (EIAJ, 1mW output, playback mode)
Maximum dimensions (W x H x D) :	
HS-T29/T29W :	89.7 x 116.3 x 34.6 mm ($3\frac{5}{8}$ x $4\frac{5}{8}$ x $1\frac{3}{8}$ inches)
HS-T33/T33W :	89.7 x 116.3 x 35.7 mm ($3\frac{5}{8}$ x $4\frac{5}{8}$ x $1\frac{7}{16}$ inches)
Weight :	
HS-T29/T29W :	206g, 7.2 oz (including batteries)
HS-T33/T33W :	209g, 7.3 oz (including batteries)

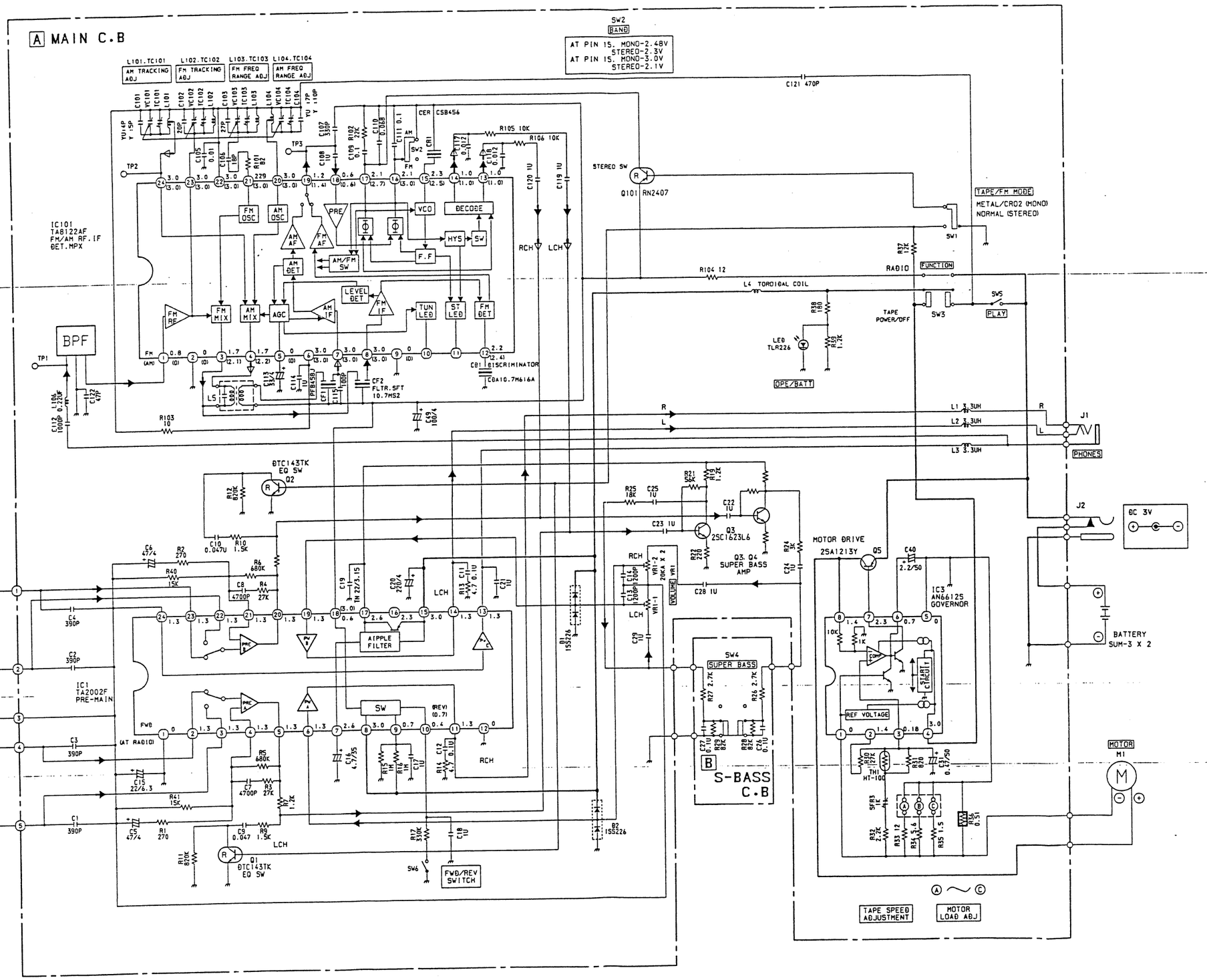
■ ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q,TY
	1	★81-HRE-901-019	INSTRUCTION BOOKLET, Y	※	1
	2	★87-080-025-219	CLIP,BELT ASSY		1
	3	★87-048-226-019	HP – M16A (Y,WYUB,YZ)		1
	4	★87-048-223-019	HP – 22NA (Y1,YJ1)		1

ELECTRICAL MAIN PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
=== IC ===		
	S87-001-351-089	IC,AN6612S
	S87-002-677-089	IC,TA2002F
	S87-001-379-089	IC,TA8122AF
=== TRANSISTOR ===		
	S89-112-134-089	TRANSISTOR,2SA1213Y(NY)
	S89-316-236-089	TRANSISTOR,2SC1623 L5(L6)
	S87-026-223-089	TRANSISTOR,DTC143TK(03)
	S87-026-267-089	TRANSISTOR,RN2407(YH)
=== DIODE ===		
	S87-020-339-089	DIODE,1SS226(C3)
=== MAIN CIRCUIT BOARD SECTION ===		
BPF101	87-030-136-010	FILTER,BPMB8L 7.0
C1	S87-012-158-089	CAP,CHIP S 390P-50 CH
C2	S87-012-158-089	CAP,CHIP S 390P-50 CH
C3	S87-012-158-089	CAP,CHIP S 390P-50 CH
C4	S87-012-158-089	CAP,CHIP S 390P-50 CH
C5	S87-010-501-049	CAP,ELECT 47-4 GAS
C6	S87-010-501-049	CAP,ELECT 47-4 GAS
C7	S87-010-186-089	CAP,CHIP S 4700P-50 B
C8	S87-010-186-089	CAP,CHIP S 4700P-50 B
C9	S87-010-194-089	CAP,CHIP S 0.047-25 F
C10	S87-010-194-089	CAP,CHIP S 0.047-25 F
C11	S87-010-196-089	CAP,CHIP S 0.1-25 F
C12	S87-010-196-089	CAP,CHIP S 0.1-25 F
C13	S87-010-179-089	CAP,CHIP S 1200P-50 B
C14	S87-010-179-089	CAP,CHIP S 1200P-50 B
C15	S87-010-499-049	CAP,ELECT 22-6.3 GAS
C16	S87-010-497-049	CAP,ELECT 4.7-35 GAS
C17	S87-010-452-089	CAP,CHIP 1-16 F
C19	S87-010-422-079	CAP,TANTALUM 22-4 S89
C20	S87-010-503-049	CAP,ELECT 220-4 GAS
C21	S87-010-452-089	CAP,CHIP 1-16 F
C22	S87-010-452-089	CAP,CHIP 1-16 F
C23	S87-010-452-089	CAP,CHIP 1-16 F
C24	S87-010-452-089	CAP,CHIP 1-16 F
C25	S87-010-452-089	CAP,CHIP 1-16 F
C28	S87-010-452-089	CAP,CHIP 1-16 F
C29	S87-010-452-089	CAP,CHIP 1-16 F
C30	S87-010-495-049	CAP,ELECT 2.2-50 GAS
C31	S87-010-493-049	CAP,ELECT 0.47-50 GAS
C49	S87-010-502-049	CAP,ELECT 100-4 GAS
C101	S87-010-149-089	CAP,CHIP S 5P-50 CH(Y)
C101	S87-010-148-089	CAP,CHIP S 4P-50 CH(YU)
C102	S87-010-314-089	CAP,CHIP S 22P-50 CH
C103	S87-010-315-089	CAP,CHIP S 27P-50 CH
C104	S87-010-151-089	CAP,CHIP S 7P-50 CH(YU)
C104	S87-010-154-089	CAP,CHIP S 10P-50 CH(Y)
C105	S87-010-197-089	CAP,CHIP S 0.01-25 B
C106	S87-010-312-089	CAP,CHIP S 15P-50 CH
C107	S87-012-157-089	CAP,CHIP S 330P-50 CH
C108	S87-010-452-089	CAP,CHIP 1-16 F
C109	S87-010-196-089	CAP,CHIP S 0.1-25 F
C110	S87-010-195-089	CAP,CHIP S 0.068-25 F
C111	S87-010-196-089	CAP,CHIP S 0.1-25 F
C112	S87-010-178-089	CAP,CHIP S 1000P-50 B
C113	S87-010-500-049	CAP,ELECT 33-4V
C114	S87-010-452-089	CAP,CHIP 1-16 F
C115	S87-010-322-089	CAP,CHIP S 100P-50 CH
C117	S87-010-428-089	CAP,CHIP S 0.015-25 B
C118	S87-010-428-089	CAP,CHIP S 0.015-25 B
C119	S87-010-452-089	CAP,CHIP 1-16 F
C120	S87-010-452-089	CAP,CHIP 1-16 F
C121	S87-010-305-089	CAP,CHIP 470P-50CH
C122	S87-010-318-089	CAP,CHIP S 47P-50 CH
CD1	S87-008-444-019	FILTER KIT,FM 5RANK
CF2	+++	FILTER KIT,FM 5RANK
CF1	87-008-284-019	FILTER,PFB 468J
CR1	87-030-200-019	CERAMIC RESONATOR,CSB 456 F16
J1	87-049-861-019	JACK,3.5 ST 2.5MM BK(PHONES)
J2	87-009-022-019	DC JACK LONG(DC 3V)
L1	87-003-142-089	CHOKE COIL 3.3UH TAPG
L2	87-003-142-089	CHOKE COIL 3.3UH TAPG
L3	87-003-142-089	CHOKE COIL 3.3UH TAPG
L4	87-003-089-019	COIL,47UH
L5	87-008-475-019	COIL,IFT AM
L101	81-HRG-605-019	BAR-ANT MW
L102	80-HJ6-603-019	COIL,RF FM
L103	80-HJ6-604-019	COIL,OSC FM
L104	87-007-309-019	COIL,OSC AM
L106	87-003-133-019	COIL,0.22UH
LED1	87-020-520-019	LED TLR226(OPE/BATT)
R36	S87-022-042-089	RES,CHIP M M/F 0.51-1/8
SFR1	87-024-050-019	SFR 1K
SW1	87-036-123-019	SLIDE SW,CHIP 1-1-2(TAPE/FM MO
SW2	87-031-816-019	SLIDE SW 1-1-2(BAMD)
SW3	87-031-986-019	SLIDE SW 1-2-2(FUNCTION)
SW5	87-036-110-019	PUSH SW SPPB 62(PLAY)
SW6	87-036-110-019	PUSH SW SPPB 62(FWD/REV)
TH1	87-026-256-090	THERMISTOR,HT-100
VC101	87-011-237-019	TUN-CAP,7.5-20
VC102	+++	TUN-CAP,7.5-20
VC103	+++	TUN-CAP,7.5-20
VC104	+++	TUN-CAP,7.5-20
TC101	+++	TUN-CAP,7.5-20
TC102	+++	TUN-CAP,7.5-20
TC103	+++	TUN-CAP,7.5-20
TC104	+++	TUN-CAP,7.5-20
VR1	87-024-326-019	VR,20KAX2 DIA8(VOLUME)
=== SUPER BASS CIRCUIT BOARD SECTION ===		
C26	S87-010-196-089	CAP,CHIP S 0.1-25 F
C27	S87-010-196-089	CAP,CHIP S 0.1-25 F
SW4	87-036-124-089	SLIDE SW,CHIP 1-2-2(SUPER BASS
=== HEAD FLEX. CIRCUIT BOARD SECTION ===		
	81-HK6-604-019	HEAD PH ASSY
PCB-C	S81-HK6-606-019	HEAD FLEX.C.B
PH	81-HK6-605-019	HEAD PH
=== MISCELLANEOUS ===		
M1	S87-045-300-019	MOTOR(BDH3B)

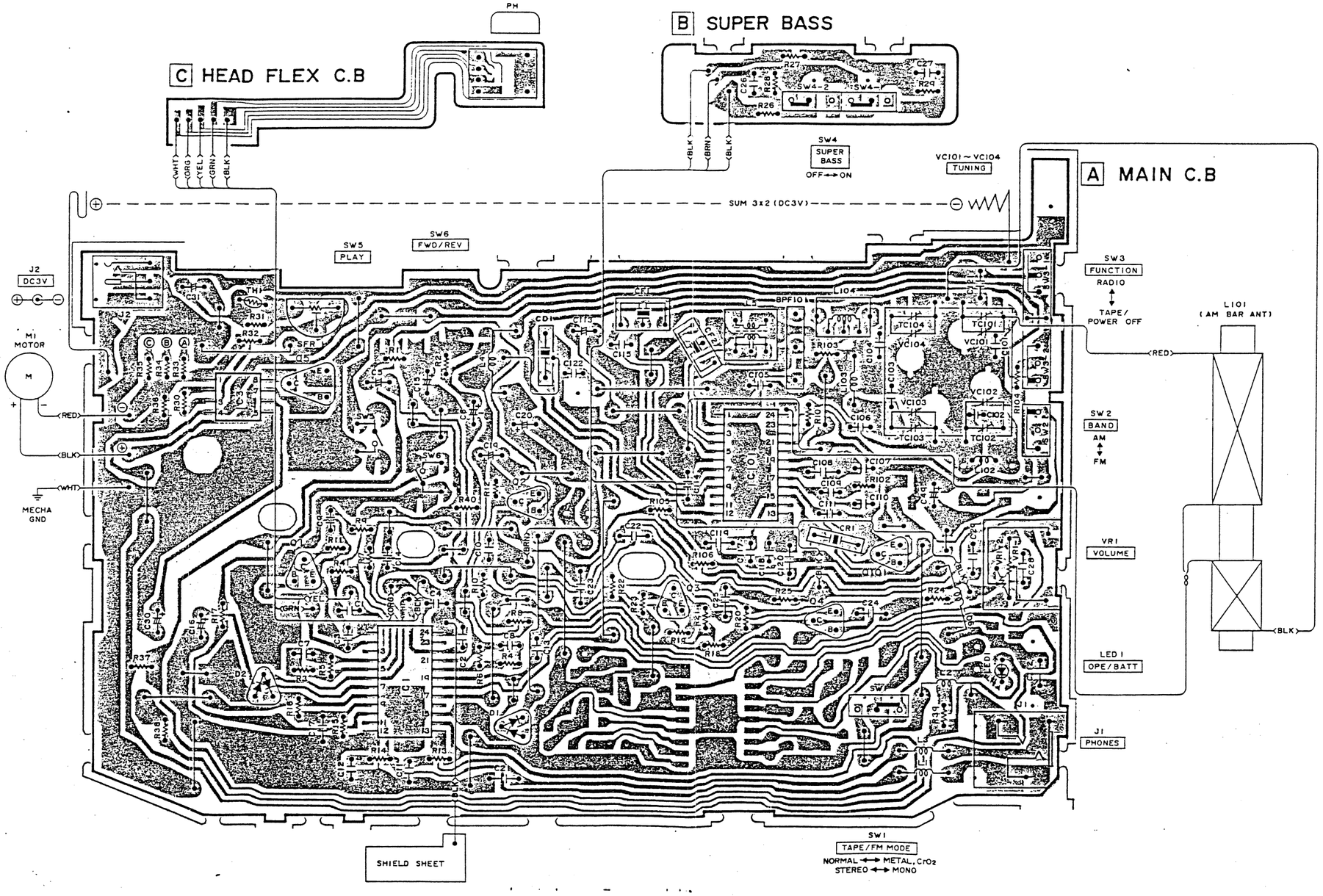
SCHEMATIC DIAGRAM



SW1 METAL/MONO
NORMAL/STEREO
SW2 RADIO (AM/FM)
SW3 FUNCTION
SW4 SUPERBASE SW
SW5 PLAY SW
SW6 FWD/REV SW

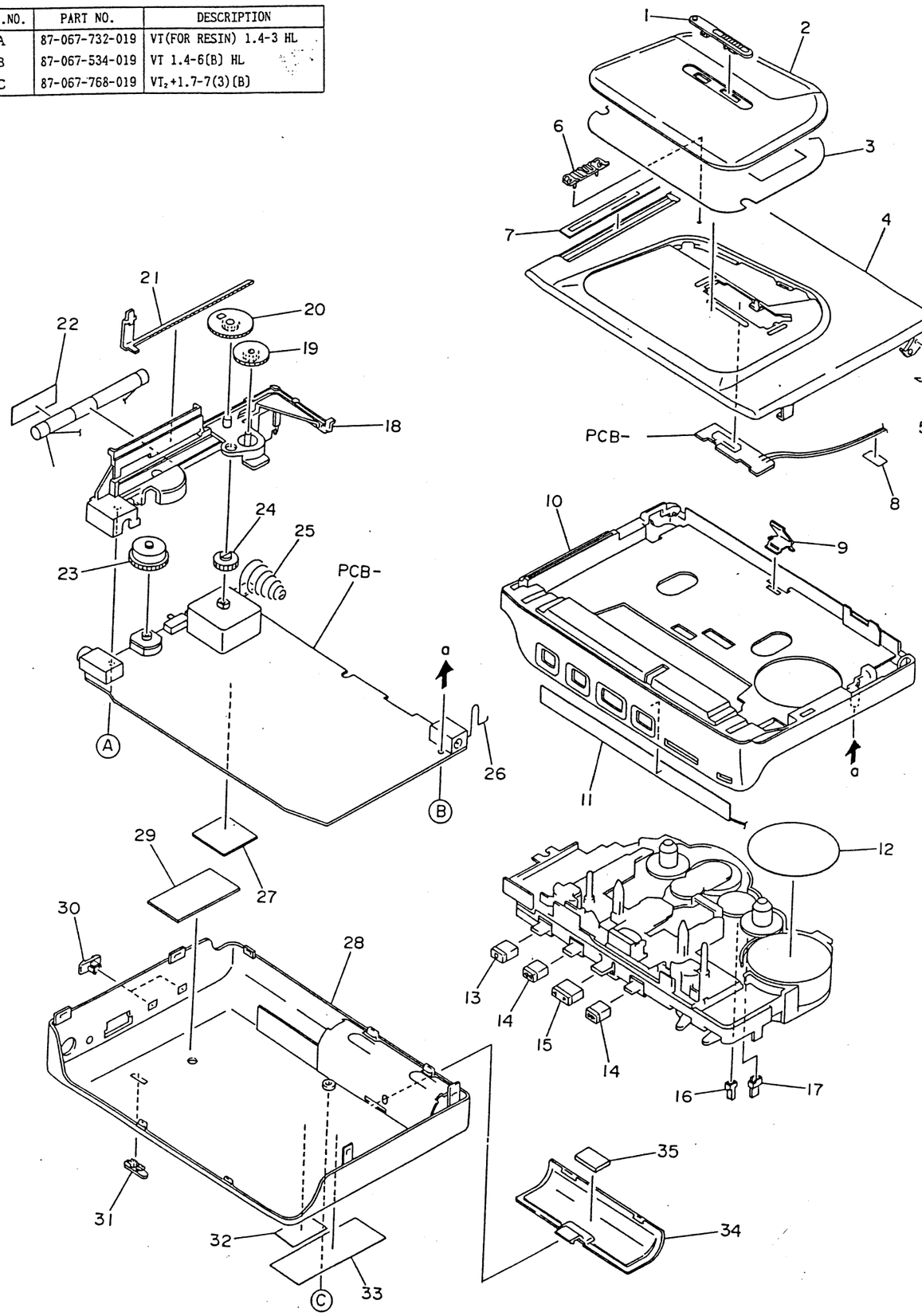
TP1 FM RF/IF INPUT
TP2 AM IF IMPUT
TP3 AM/FM DET OUT

4 5 6


C HEAD FLEX C.B
PH
B SUPER BASS
SW4
SUPER BASS
OFF → ON
VC101 ~ VC104
TUNING
A MAIN C.B
SUM 3x2 (DC3V)
J2
DC3V
M1
MOTOR
RED
BLK
WHT
MECHA GND
SW5
PLAY
SW6
FWD/REV
SW3
FUNCTION
RADIO
TAPE/
POWER OFF
L101
(AM BAR ANT)
SW2
BAND
AM
FM
VR1
VOLUME
LED1
OPE/BATT
J1
PHONES
SHIELD SHEET
SW1
TAPE/FM MODE
NORMAL ↔ METAL, CrO2
STEREO ↔ MONO

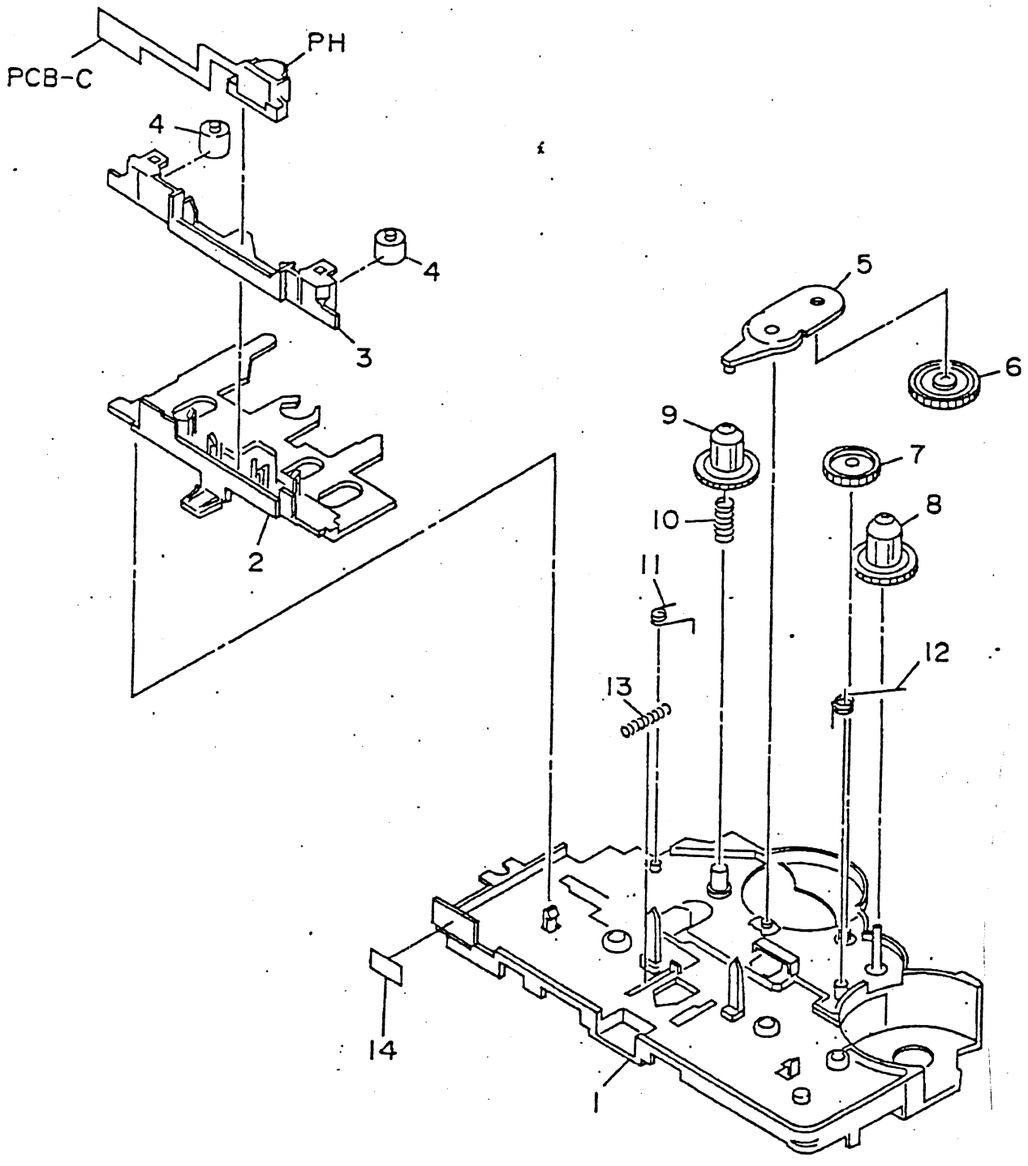
EXPLODED VIEW – 1

REF.NO.	PART NO.	DESCRIPTION
A	87-067-732-019	VT(FOR RESIN) 1.4-3 HL
B	87-067-534-019	VT 1.4-6(B) HL
C	87-067-768-019	VT_2+1.7-7(3)(B)



MECHANICAL PARTS LIST

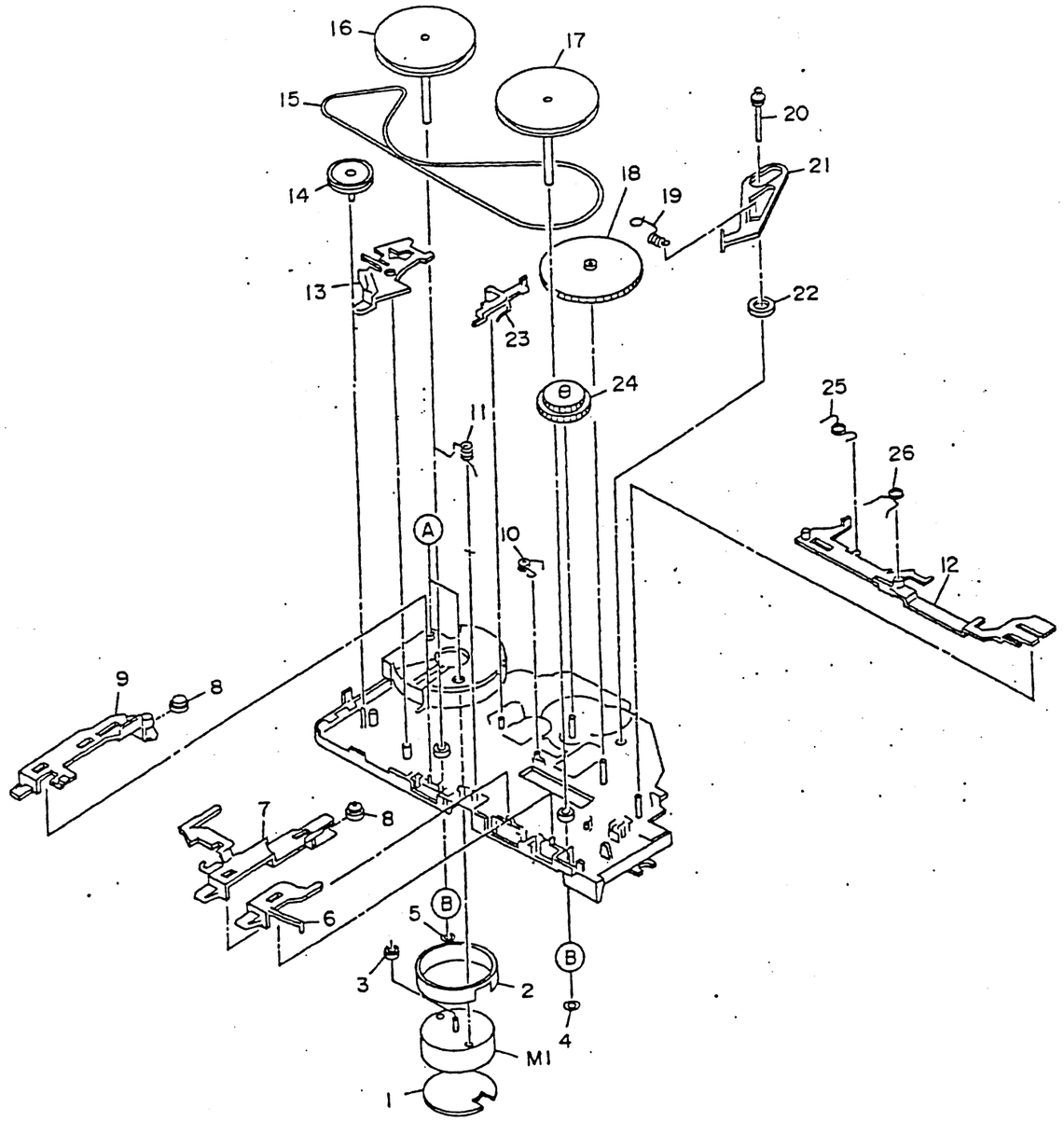
PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	1-1	81-HRG-003-019	KNOB,SLIDE SB	*	1
	1-2	81-HRG-002-019	WINDOW,CASSETTE	*	1
	1-3	81-HRG-202-019	ADHESIVE,WINDOW	*	1
	1-4	81-HRG-001-119	LID,CASSETTE(EXCEPT FOR WYUB)	*	1
	1-4	81-HRG-007-119	LID,CASSETTE(WYUB)	*	1
	1-5	81-HRE-207-119	T-SPRING,CLICK		1
	1-6	87-054-080-010	BADGE,AIWA20		1
	1-7	81-HRG-005-119	PLATE,DIAL	*	1
	1-8	84-530-599-019	SHEET,CLOTH 10-G.5		1
	1-9	81-HRK-202-019	P-SPRING,CASSETTE		1
	1-10	81-HRE-002-119	FRAME,CENTRE		1
	1-11	81-HRG-608-010	SHIELD,SHEET EARTH	*	1
	1-12	81-HRE-017-019	LABEL,MOTOR 0.05		1
	1-13	81-HRE-020-019	BUTTON,STOP RAW		1
	1-14	81-HRE-019-019	BUTTON,FF RAW		2
	1-15	81-HRE-018-019	BUTTON,PLAY RAW		1
	1-16	81-HRE-209-119	SPACER,SW B		1
	1-17	81-HRE-208-019	SPACER,SW A		1
	1-18	81-HRE-202-019	CHASSIS,TUNER		1
	1-19	81-HRE-203-119	GEAR,IDLER		1
	1-20	81-HRE-008-119	KNOB,ROTARY TUNER		1
	1-21	81-HRE-011-019	POINTER,TUNER		1
	1-22	81-HRE-211-019	SHIELD,STATIC		1
	1-23	84-506-028-119	KNOB,VOLUME		1
	1-24	81-HRE-204-119	GEAR,TUNER-CAP		1
	1-25	81-HRE-206-019	BATTERY-CONTACT -		1
	1-26	81-HRE-205-019	BATTERY-CONTACT +		1
	1-27	81-HRE-212-019	SHIELD,NUT		1
	1-28	81-HRG-009-219	CABINET,REAR	*	1
	1-29	81-HRE-222-019	MYLAR,14-28-0.5		1
	1-30	81-HRE-009-219	KNOB,SLIDE CONTROL		1
	1-31	81-HRE-010-019	KNOB,SLIDE CONTROL B		1
	1-32	81-HRG-006-019	LABEL,SPEC Y(Y,YJ,YZ)	*	1
	1-32	81-HRG-010-019	LABEL,SPEC YU(WYUB)	*	1
	1-32	81-HRG-008-019	LABEL,SPEC YJ1(YJ1)	*	1
	1-33	81-HRE-211-019	CUSHION,BATTERY		1
	1-34	81-HRE-004-019	LID,BATTERY		1



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	2-1	M8-OZM-291-010	OZM-2 MECHANISM ASSY		1
	2-1	---	CHASSIS, MAIN		1
	2-2	---	LEVER, BUTTON PLAY		1
	2-3	---	LEVER, PINCH		1
	2-4	★ 80-ZM2-228-110	PINCH ROLLER ASSY		2
	2-5	---	LEVER, PLAY FR		1
	2-6	★ 80-ZM2-224-010	GEAR, PLAY FR		1
	2-7	★ 80-ZM2-225-010	GEAR, MIRROR		1
	2-8	★ 80-ZM2-222-010	TABLE, REEL F		1
	2-9	★ 80-ZM2-223-010	TABLE, REEL R		1
	2-10	---	C-SPRING, BT		1
	2-11	---	T-SPRING, DEFEND AUTO		1
	2-12	---	T-SPRING, BT		1
	2-13	---	C-SPRING, BUTTON PLAY		1
	2-14	---	ADHESIVE-SHEET, FLEX		1

EXPLODED VIEW – 3

REF.NO.	PART NO.	DESCRIPTION
A	87-264-528-310	V+1.7-3.5 CR
B	87-067-784-010	PW2.07-3-0.2
C	80-ZM2-596-019	PW0.9-3-0.25



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	3-1	---	BOARD,SHIELD B		1
	3-2	---	BOARD,SHIELD		1
	3-3	★ 80-ZM2-232-010	PULLEY,MOTOR		1
	3-4	★ 87-067-605-010	SHEET,SOMA 3.5-1.45-0.3		1
	3-5	★ 87-067-783-010	SHEET,SOMA		1
	3-6	---	LEVER,BUTTON STOP		1
	3-7	---	LEVER,BUTTON REW		1
	3-8	★ 80-ZM2-256-110	GEAR,FF REW		2
	3-9	---	LEVER,BUTTON FF		1
	3-10	---	T-SPRING,PLAY FR		1
	3-11	---	T-SPRING,BUTTON FF REW		1
	3-12	---	LEVER,DIR		1
	3-13	---	BUTTON,DIR		1
	3-14	★ 80-ZM2-231-010	PULLEY,BELT		1
	3-15	★ 80-ZM2-240-010	BELT,SQ 0.75-244		1
	3-16	80-ZM2-262-019	FLYWHEEL FW ASSY		1
	3-17	80-ZM2-216-010	FLYWHEEL R ASSY		1
	3-18	★ 80-ZM2-227-210	GEAR,AUTO		1
	3-19	---	E-SPRING,LEVER AUTO		1
	3-20	---	SHAFT,REEL		1
	3-21	---	LEVER,AUTO		1
	3-22	---	SHEET,AUTO		1
	3-23	---	LEVER,SWITCH		1
	3-24	★ 80-ZM2-218-810	SLIP GEAR ASSY		1
	3-25	---	T-SPRING,DIR		1
	3-26	---	T-SPRING,PINCH		1

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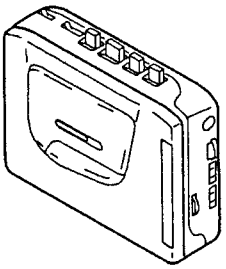
SERVICE MANUAL



STEREO RADIO CASSETTE PLAYER

• BASIC TAPE MECHANISM : 0ZM – 2 • TYPE. Y

SPECIFICATIONS

Frequency range:	FM: 87.5-108 MHz AM: 530-1705 kHz (HS-T29W) 530-1605 kHz (HS-T29)
Maximum output:	20mW + 20mW (EIAJ/16Ω) 15mW + 15mW (EIAJ/32Ω)
Power source:	Battery DC 3V, R6P (LR6, SUM-3, AA) X 2 Domestic AC power (using optional AC adaptor: AIWA AC-620)
Battery life:	Using manganese batteries (R6P, SUM-3, AA) Approx. 4 hours (EIAJ, 1mW output, playback mode) Using alkaline batteries (LR6, AM-3, AA) Approx. 8 hours (EIAJ, 1mW output, playback mode)
Maximum dimensions (W x H x D) :	89.7 x 116.3 x 34.6 mm ($3\frac{5}{8}$ x $4\frac{5}{8}$ x $1\frac{3}{8}$ inches)
Weight :	206g, 7.2 oz (including batteries)

• Design and specifications are subject to change without notice.

AIWA CO.,LTD. Tokyo Japan

Printed in Japan

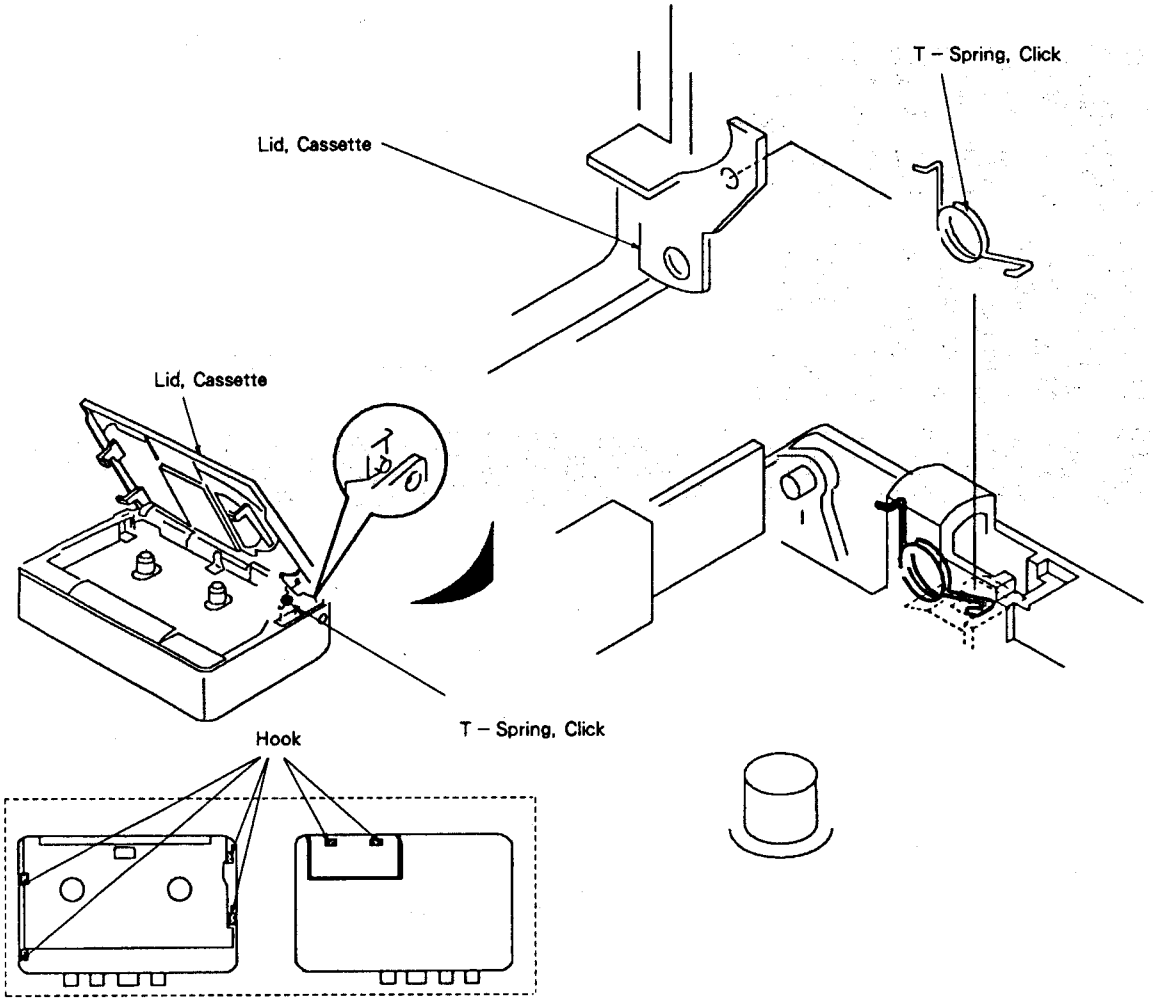
747

DISASSEMBLY INSTRUCTIONS

To hook the spring to the "Lid, Cassette"

1) When reinstalling, hook the "T – Spring, Click" as shown in the figure.

Note) Remove 4 hooks and remove the "Rear Cabinet".



■ ACCESSORIES/PACKAGE LIST

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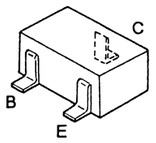
	2	★87-080-025-219	CLIP,BELT ASSY		1
	3	★87-048-226-019	HP – M16A (Y,WYUB,YZ)		1
	4	★87-048-223-019	HP – 22NA (Y1,YJ1)		1

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
=== IC ===		
	87-001-351-089	IC, AN6612S
	87-002-677-089	IC, TA2002F
	87-001-379-089	IC, TA8122AF
=== TRANSISTOR ===		
	89-112-134-089	TRANSISTOR, 2SA1213Y(NY)
	89-316-236-089	TRANSISTOR, 2SC1623 L6(L6)
	87-026-223-089	TRANSISTOR, DTC143TK(03)
	87-026-267-089	TRANSISTOR, RN2407(YH)
=== DIODE ===		
	87-020-339-089	DIODE, 1SS226(C3)
=== MAIN CIRCUIT BOARD SECTION ===		
BPF101	★87-030-136-010	FILTER, BPMB8L 7.0
C1	★87-012-158-089	CAP, CHIP S 390P-50 CH
C2	★87-012-158-089	CAP, CHIP S 390P-50 CH
C3	★87-012-158-089	CAP, CHIP S 390P-50 CH
C4	★87-012-158-089	CAP, CHIP S 390P-50 CH
C5	★87-010-501-049	CAP, ELECT 47-4 GAS
C6	★87-010-501-049	CAP, ELECT 47-4 GAS
C7	★87-010-186-089	CAP, CHIP S 4700P-50 B
C8	★87-010-186-089	CAP, CHIP S 4700P-50 B
C9	★87-010-194-089	CAP, CHIP S 0.047-25 F
C10	★87-010-194-089	CAP, CHIP S 0.047-25 F
C11	★87-010-196-089	CAP, CHIP S 0.1-25 F
C12	★87-010-196-089	CAP, CHIP S 0.1-25 F
C13	★87-010-179-089	CAP, CHIP S 1200P-50 B
C14	★87-010-179-089	CAP, CHIP S 1200P-50 B
C15	★87-010-499-049	CAP, ELECT 22-6.3 GAS
C16	★87-010-497-049	CAP, ELECT 4.7-35 GAS
C17	★87-010-452-089	CAP, CHIP 1-16 F
C19	★87-010-422-079	CAP, TANTALUM 22-4 S89
C20	★87-010-503-049	CAP, ELECT 220-4 GAS
C21	★87-010-452-089	CAP, CHIP 1-16 F
C22	★87-010-452-089	CAP, CHIP 1-16 F
C23	★87-010-452-089	CAP, CHIP 1-16 F
C24	★87-010-452-089	CAP, CHIP 1-16 F
C25	★87-010-452-089	CAP, CHIP 1-16 F
C28	★87-010-452-089	CAP, CHIP 1-16 F
C29	★87-010-452-089	CAP, CHIP 1-16 F
C30	★87-010-495-049	CAP, ELECT 2.2-50 GAS
C31	★87-010-493-049	CAP, ELECT 0.47-50 GAS
C49	★87-010-502-049	CAP, ELECT 100-4 GAS
C101	★87-010-149-089	CAP, CHIP S 5P-50 CH(Y)
C101	★87-010-148-089	CAP, CHIP S 4P-50 CH(YU)
C102	★87-010-314-089	CAP, CHIP S 22P-50 CH
C103	★87-010-315-089	CAP, CHIP S 27P-50 CH
C104	★87-010-151-089	CAP, CHIP S 7P-50 CH(YU)
C104	★87-010-154-089	CAP, CHIP S 10P-50 CH(Y)
C105	★87-010-197-089	CAP, CHIP S 0.01-25 B
C106	★87-010-312-089	CAP, CHIP S 15P-50 CH
C107	★87-012-157-089	CAP, CHIP S 330P-50 CH
C108	★87-010-452-089	CAP, CHIP 1-16 F
C109	★87-010-196-089	CAP, CHIP S 0.1-25 F
C110	★87-010-195-089	CAP, CHIP S 0.068-25 F
C111	★87-010-196-089	CAP, CHIP S 0.1-25 F
C112	★87-010-178-089	CAP, CHIP S 1000P-50 B
C113	★87-010-500-049	CAP, ELECT 33-4V
C114	★87-010-452-089	CAP, CHIP 1-16 F
C115	★87-010-322-089	CAP, CHIP S 100P-50 CH
C117	★87-010-428-089	CAP, CHIP S 0.015-25 B

REF. NO.	PART NO.	DESCRIPTION
C118	★87-010-428-089	CAP, CHIP S 0.015-25 B
C119	★87-010-452-089	CAP, CHIP 1-16 F
C120	★87-010-452-089	CAP, CHIP 1-16 F
C121	★87-010-305-089	CAP, CHIP 470P-50CH
C122	★87-010-318-089	CAP, CHIP S 47P-50 CH
CD1	★87-008-444-019	FILTER KIT, FM 5RANK
CF2	+++	FILTER KIT, FM 5RANK
CF1	★87-008-284-019	FILTER, PFB 468J
CR1	★87-030-200-019	CERAMIC RESONATOR, CSB 456 F16
J1	★87-049-861-019	JACK, 3.5 ST 2.5MM BK(PHONES)
J2	★87-009-022-019	DC JACK LONG(DC 3V)
L1	★87-003-142-089	CHOKE COIL 3.3UH TAPG
L2	★87-003-142-089	CHOKE COIL 3.3UH TAPG
L3	★87-003-142-089	CHOKE COIL 3.3UH TAPG
L4	★87-003-089-019	COIL, 47UH
L5	★87-008-475-019	COIL, IFT AM
L101	★81-HRG-605-019	BAR-ANT MW
L102	★80-HJ6-603-019	COIL, RF FM
L103	★80-HJ6-604-019	COIL, OSC FM
L104	★87-007-309-019	COIL, OSC AM
L106	★87-003-133-019	COIL, 0.22UH
LED1	★87-020-520-019	LED TLR226(OPE/BATT)
R36	★87-022-042-089	RES, CHIP M M/F 0.51-1/8
SFR1	★87-024-050-019	SFR 1K
SW1	★87-036-123-019	SLIDE SW, CHIP 1-1-2(TAPE/FM MODE)
SW2	★87-031-816-019	SLIDE SW 1-1-2(BAMD)
SW3	★87-031-986-019	SLIDE SW 1-2-2(FUNCTION)
SW5	★87-036-110-019	PUSH SW SPPB 62(PLAY)
SW6	★87-036-110-019	PUSH SW SPPB 62(FWD/REV)
TH1	★87-026-256-090	THERMISTOR, HT-100
VC101	★87-011-237-019	TUN-CAP, 7.5-20
VC102	+++	TUN-CAP, 7.5-20
VC103	+++	TUN-CAP, 7.5-20
VC104	+++	TUN-CAP, 7.5-20
TC101	+++	TUN-CAP, 7.5-20
TC102	+++	TUN-CAP, 7.5-20
TC103	+++	TUN-CAP, 7.5-20
TC104	+++	TUN-CAP, 7.5-20
VR1	★87-024-326-019	VR, 20KAX2 DIA8(VOLUME)
=== SUPER BASS CIRCUIT BOARD SECTION ===		
C26	★87-010-196-089	CAP, CHIP S 0.1-25 F
C27	★87-010-196-089	CAP, CHIP S 0.1-25 F
SW4	★87-036-124-089	SLIDE SW, CHIP 1-2-2(SUPER BASS)
=== HEAD FLEX. CIRCUIT BOARD SECTION ===		
	81-HK6-604-019	HEAD PH ASSY(W/PCB-C)
PCB-C	★81-HK6-606-019	HEAD FLEX. C. B
PH	81-HK6-605-019	HEAD PH
=== MISCELLANEOUS ===		
M1	★87-045-300-019	MOTOR(BDH3B)



2SA1213
2SC1623
RN2407
DTC143TK

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち
Chip resistor part coding

8 8 – □□□ – □□ □

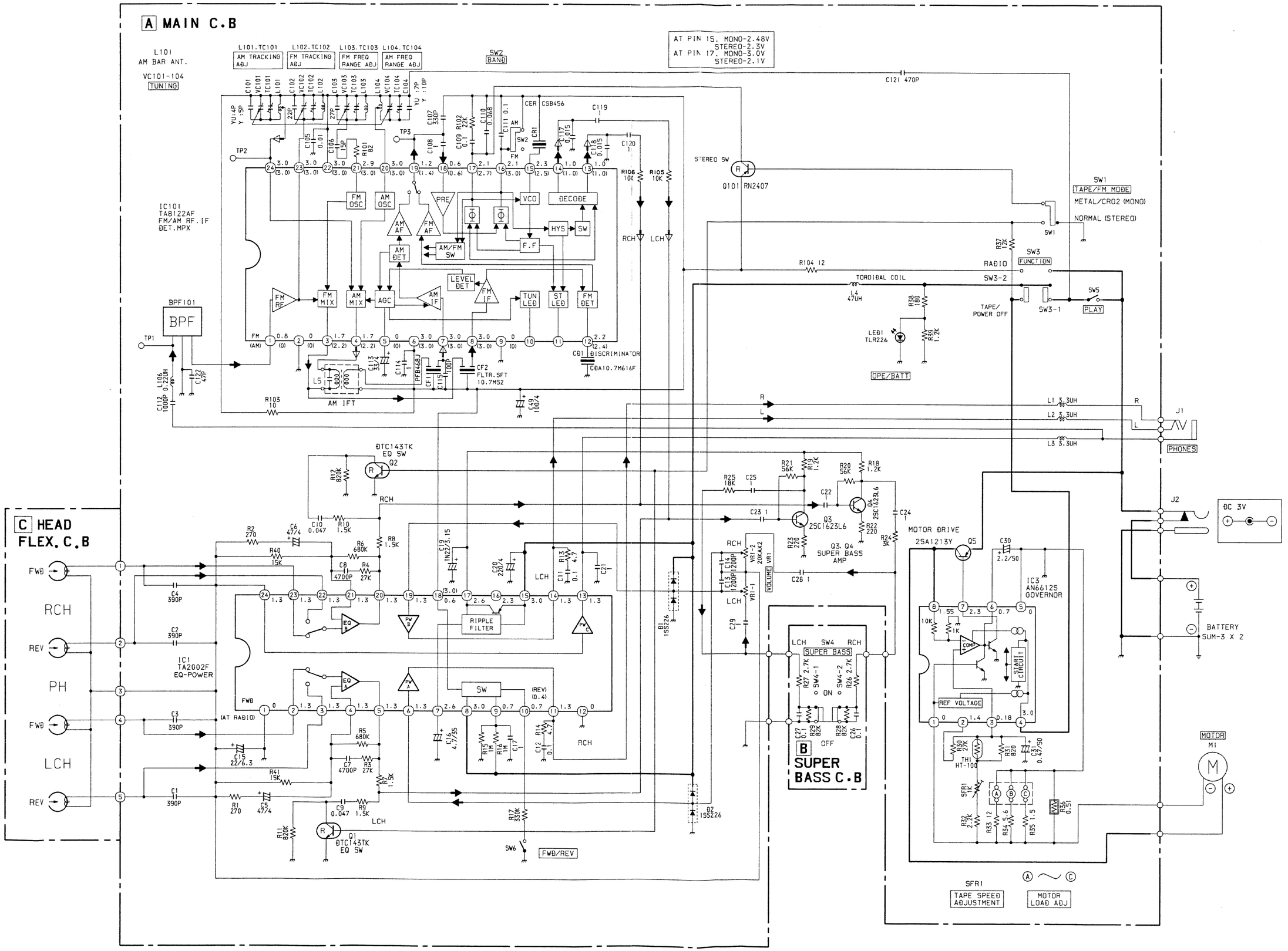
A
抵抗コード
Resistor code

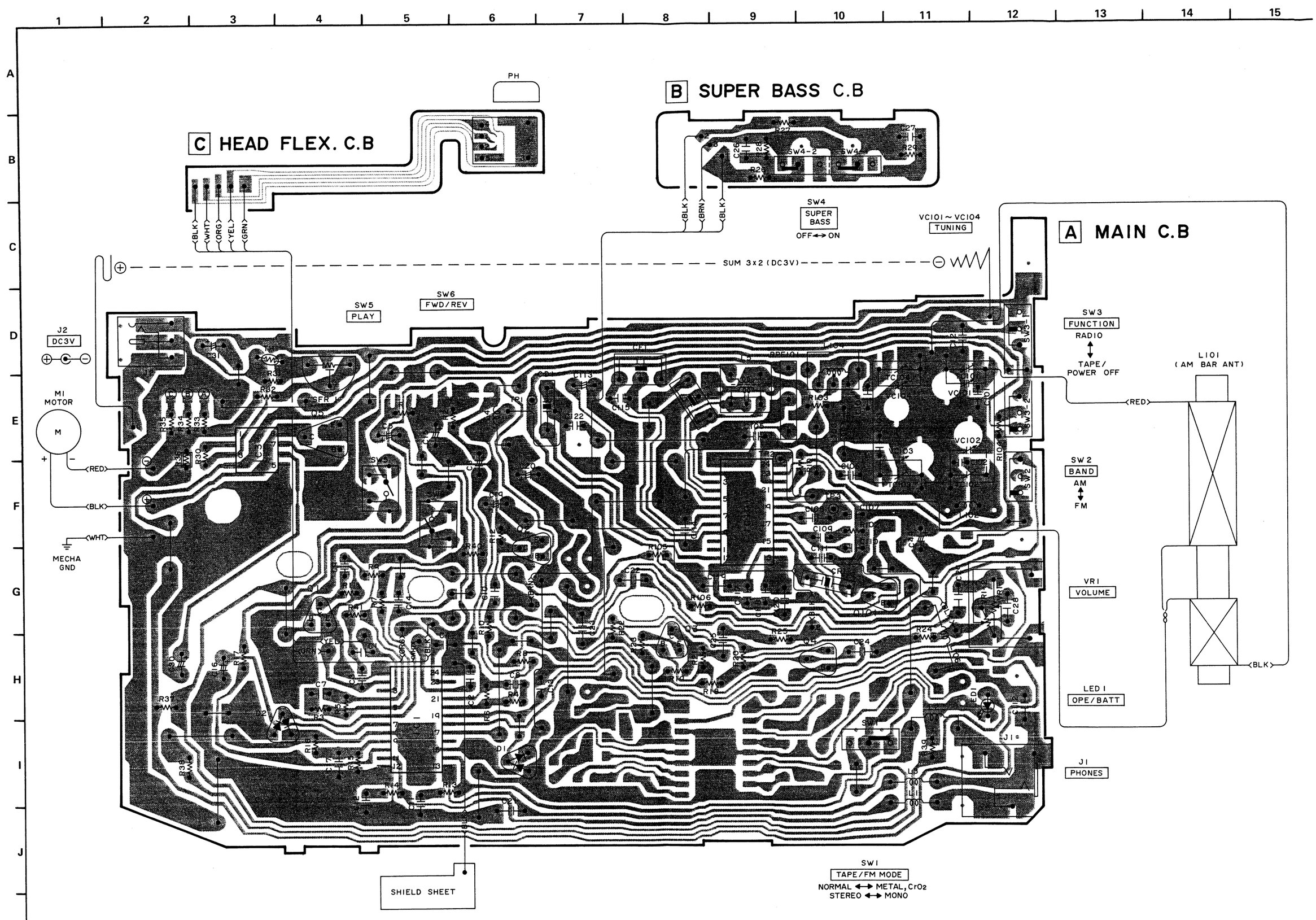
桁表示
Figure

抵抗値
Value of resistor

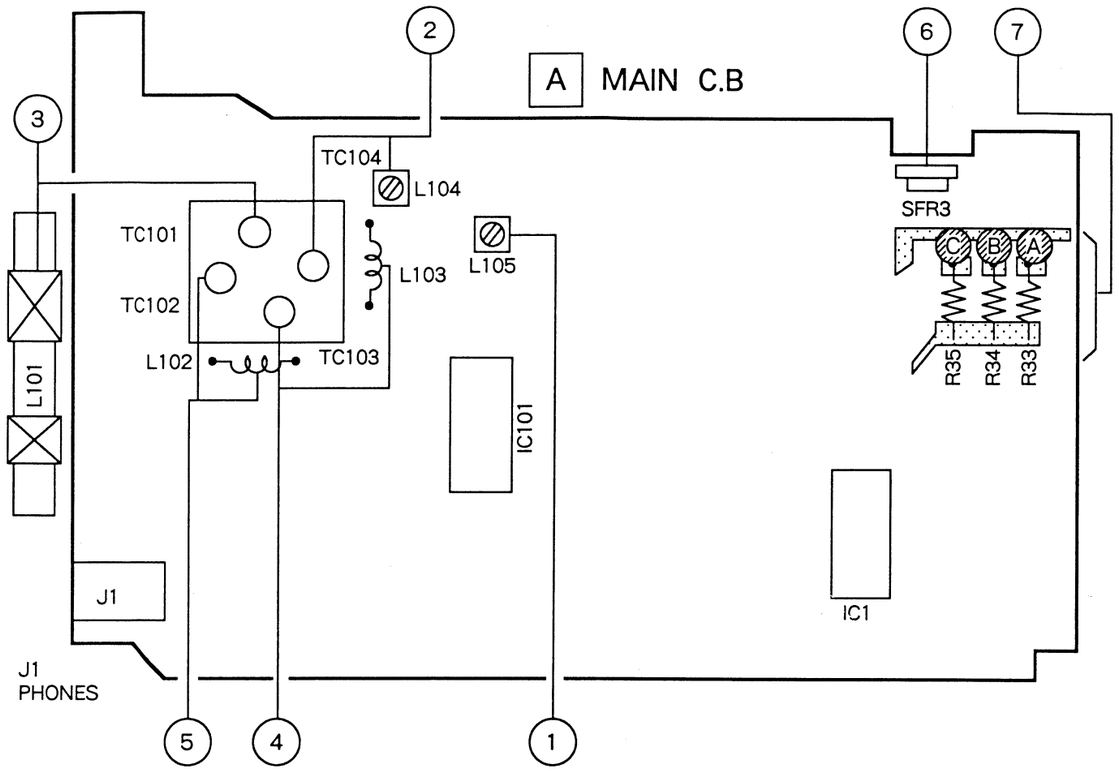
チップ抵抗
Chip resistor

Wattage 容量	Type 種類	Tolerance 許容誤差	Symbol 記号	Dimensions／寸法(mm) Form/外形	L	W	t	Resistor Code : A 抵抗コード : A
1/32W	1608	±5%	CJ		1.6	0.8	0.35	108
1/10W	2125	±5%	CJ		2	1.25	1.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.5 ～0.7	128


A MAIN C.B
L101
AM BAR ANT.
VC101-104
TUNING
L101.TC101
AM TRACKING ADJ
L102.TC102
FM TRACKING ADJ
L103.TC103
FM FREQ RANGE ADJ
L104.TC104
AM FREQ RANGE ADJ
SW2
BAND
AT PIN 15, MONO-2.48V
STEREO-2.3V
AT PIN 17, MONO-3.0V
STEREO-2.1V
C121 470P
IC101
TA8122AF
FM/AM RF.IF
DET.MPX
FM OSC
AM OSC
PRE
VCO
DECODE
HYS
SW
F.F
AM AF
FM AF
AM DET
AM/FM SW
FM RF
FM MIX
AM MIX
AGC
AM IF
LEVEL DET
FM IF
TUN LED
ST LED
FM DET
BPF101
BPF
TP1
TP2
TP3
L106 0.22UH
C122 47P
C112 1000P
R103 10
AM IFT
L5
CF1 PFB468J
CF2 FLTR.SFT 10.7MS2
CD1 DISCRIMINATOR
CD1A 10.7M 61kF
C113 33/4
C114 1
C115 100P
C116 1000P
C117 0.015
C118 0.015
C119 1
C120 1
C107 330P
C108 1
C109 0.1
R102 22K
C110 0.068
C111 0.1
CR1 CER CSB456
SW2 AM FM
R101 82
C105 0.01
C106 15P
22P
27P
R104 12
R105 10K
R106 10K
RCH
LCH
STEREO SW
Q101 RN2407
SW1
TAPE/FM MODE
METAL/CRO2 (MONO)
NORMAL (STEREO)
R37 12K
SW3
FUNCTION
RADIO
SW3-2
TOROIDAL COIL
L4 47UH
R38 180
LED1 TLR226
R39 1.2K
OPE/BATT
TAPE/ POWER OFF
SW3-1
SW5
PLAY
L1 3.3UH
L2 3.3UH
L3 3.3UH
J1
PHONES
J2
DC 3V
BATTERY SUM-3 X 2
C HEAD FLEX. C.B
FWD
RCH
REV
PH
FWD
LCH
REV
IC1
TA2002F
EQ-POWER
EQ A
EQ B
PW A
PW B
PW C
SW
RIPPLE FILTER
(AT RADIO)
(REV) (0.4)
C1 390P
C2 390P
C3 390P
C4 390P
C5 4/74
C6 4/74
C7 4700P
C8 4700P
C9 0.047
C10 0.047
C11 0.1
C12 0.1
C13 4.7/35
C14 4.7/35
C15 22/6.3
R1 270
R2 270
R3 27K
R4 27K
R5 680K
R6 680K
R7 1.5K
R8 1.5K
R9 1.5K
R10 1.5K
R11 820K
R12 820K
R13 4.7
R14 4.7
R15 1M
R16 1M
C17 1
R40 15K
R41 15K
ETC143TK EQ SW
Q1
Q2
D1 IN22 3.15
D2 1SS226
C19 1
C20 220/4
C21 1
R17 330K
SW6
FWD/REV
R18 1.2K
R19 1.2K
R20 56K
R21 56K
R22 220
R23 220
R24 3K
R25 18K
C22 1
C23 1
C24 1
C25
Q3 2SC1623L6
Q4 2SC1623L6
Q3, Q4 SUPER BASS AMP
C28 1
VOLUME
VR1 20K A X2
VR1-1
VR1-2
C29 1
C14 1200P
C16 1200P
LCH SW4 RCH
SUPER BASS
SW4-1
SW4-2
ON
OFF
R27 2.7K
R26 2.7K
R29 82K
R28 82K
C27 0.1
C26 0.1
B SUPER BASS C.B
MOTOR DRIVE
2SA1213Y
Q5
C30 2.2/50
IC3
AN6612S
GOVERNOR
CONT
START CIRCUIT
REF VOLTAGE
10K
1K
R30 27K
R31 820
C31 0.47/50
TH1 HT-100
SFR1 1K
R32 2.2K
R33 12
R34 5.6
R35 1.5
R36 0.51
MOTOR
M1
SFR1
TAPE SPEED ADJUSTMENT
MOTOR LOAD ADJ


C HEAD FLEX. C.B
PH
B SUPER BASS C.B
A MAIN C.B
BLK
WHT
ORG
YEL
GRN
BRN
SW4
SUPER BASS
OFF ↔ ON
VC101 ~ VC104
TUNING
SUM 3x2 (DC3V)
SW5
PLAY
SW6
FWD/REV
J2
DC3V
M1
MOTOR
RED
BLK
WHT
MECHA GND
SW3
FUNCTION
RADIO
TAPE/
POWER OFF
L101
(AM BAR ANT)
SW2
BAND
AM
FM
VR1
VOLUME
LED 1
OPE/BATT
J1
PHONES
SHIELD SHEET
SW1
TAPE/FM MODE
NORMAL ↔ METAL, CrO2
STEREO ↔ MONO

ADJUSTMENT



<RADIO SECTION>

1. AM IF Adjustment

L105 ····· 468kHz ± 2.5kHz

2. AM Frequency Range Adjustment

L104 ····· 515kHz ± 3kHz (Y, YZ)
517kHz ± 5kHz (YU)
TC104 ····· 1650kHz ± 10kHz (Y, YZ)
1750kHz ± 20kHz (YU)

3. AM Tracking Adjustment

L101 ····· 600kHz (Y, YZ)
630kHz (YU)
TC101 ····· 1400kHz (Y, YZ)
1500kHz (YU)

4. FM Frequency Range Adjustment

L103 ····· 87.0MHz ± 0.3MHz (Y, YU)
87.4MHz ± 0.1MHz (YZ)
TC103 ····· 108.5MHz ± 0.3MHz (Y, YU)
108.3MHz ± 0.1MHz (YZ)

5. FM Tracking Adjustment

L102 ····· 88.0MHz (Y, YU)
87.4MHz (YZ)
TC102 ····· 108.0MHz (Y, YU)
108.3MHz (YZ)

<TAPE PLAYER SECTION>

6. Tape Speed Adjustment

Settings : • Test tape : TTA – 100 (TTA – 111S)
• Test point : PHONES JACK (J1)
• Adjustment location : SFR3

Method : Play back the test tape, adjust for 3000Hz at FWD and ± 45Hz at REV.

7. Motor load Adjustment

Refer to the REF NO. SI – 88 – 037 – OP of service technical information.

PRACTICAL SERVICE FIGURE

<RADIO SECTION>

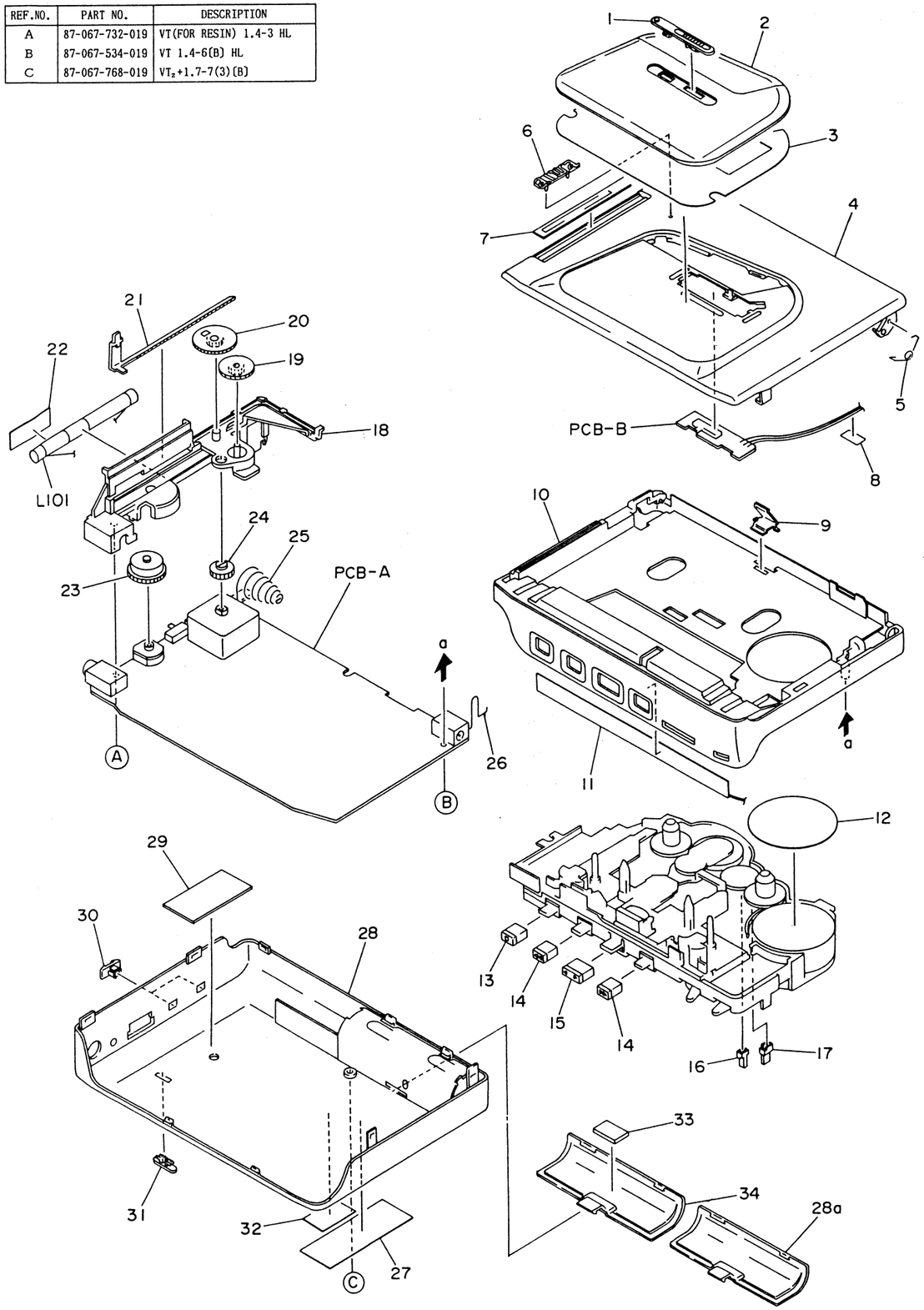
Sensitivity:	FM	Less then 18dB (88/98MHz)
(IHF THD 3%)		Less than 20dB (108MHz)
(S/N 10dB)	AM	Less than 57dB (600kHz)
		Less than 54dB (1000kHz)
		Less than 53dB (1400kHz)
Intermediate frequency:	FM	10.7 ± 0.1MHz
	AM	468kHz ± 3kHz
FM stereo separation:	FM	More than 16dB

<TAPE PLAYER SECTION>

Wow & flutter:	Less than 0.45% (JIS, RMS)
Pinch roller pressure:	125~160g
Take-up torque:	23~45g-cm (FWD/REV)
F. F & Rew torque:	More than 90g-cm
Back tension:	3.5 ± 1.5g-cm (FWD/REV)
S/N ratio:	More than 43dB (DC)
Distortion:	Less than 3.0%
Noise level:	Less than 7.0mV (VOL MAX AC)
Frequency response:	63Hz~8kHz ± 4.0dB (NORMAL)
	63Hz~10kHz ± 4.0dB (CrO_2, METAL)

EXPLODED VIEW – 1

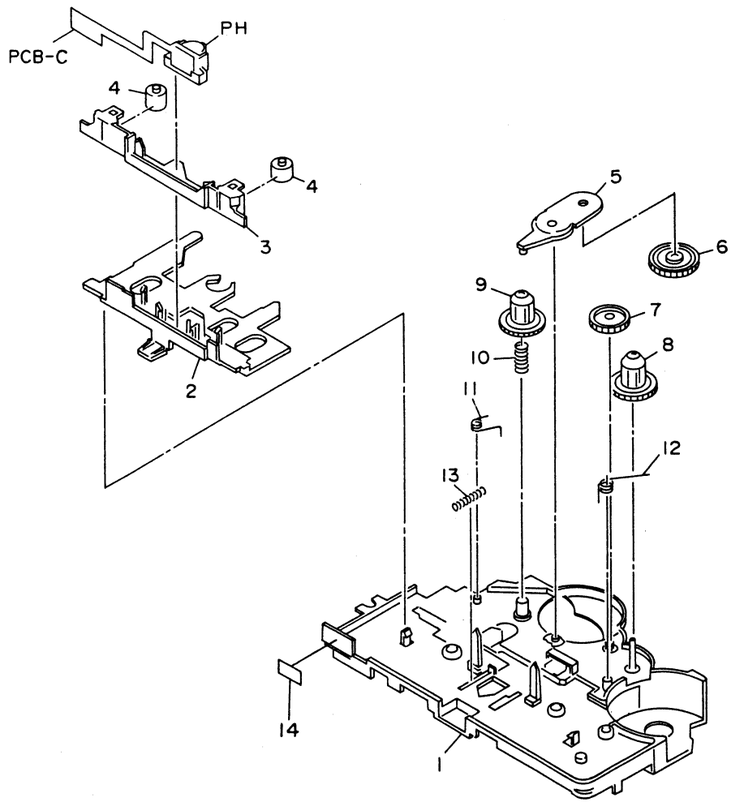
REF.NO.	PART NO.	DESCRIPTION
A	87-067-732-019	VT(FOR RESIN) 1.4-3 HL
B	87-067-534-019	VT 1.4-6(B) HL
C	87-067-768-019	VT_2+1.7-7(3)(B)



MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	1-1	★81-HRG-003-019	KNOB, SLIDE SB	*	1
	1-2	★81-HRG-002-019	WINDOW, CASSETTE	*	1
	1-3	★81-HRG-202-019	ADHESIVE, WINDOW[B, L, ST]	*	1
	1-3	★81-HRG-035-019	WINDWO, CASSETTE[N]	*	1
	1-4	81-HRG-001-119	LID, CASSETTE[B](EXCEPT FOR YU)	*	1
	1-4	81-HRG-007-119	LID, CASSETTE[B](YU)	*	1
	1-4	81-HRG-021-019	LID, CASSETTE[L](EXCEPT FOR YU)	*	1
	1-4	81-HRG-022-019	LID, CASSETTE[L](YU)	*	1
	1-4	81-HRG-031-019	LID, CASSETTE[N]	*	1
	1-4	81-HRG-015-019	LID, CASSETTE[ST](EXCEPT FOR YU)	*	1
	1-4	81-HRG-016-019	LID, CASSETTE[ST](YU)	*	1
	1-5	★81-HRE-207-119	T-SPRING, CLICK		1
	1-6	★87-054-080-010	BADGE, AIWA 20		1
	1-7	★81-HRG-005-119	PLATE, DIAL	*	1
	1-8	★84-530-599-019	SHEET, CLOTH 10-6.5		1
	1-9	★81-HRK-202-019	P-SPRING, CASSETTE		1
	1-10	★81-HRE-002-119	FRAME, CENTRE		1
	1-11	---	SHIELD, SHEET EARTH		1
	1-12	★81-HRE-017-019	LABEL, MOTOR 0.05		1
	1-13	★81-HRE-020-019	BUTTON, STOP RAW		1
	1-14	★81-HRE-019-019	BUTTON, FF RAW		2
	1-15	★81-HRE-018-019	BUTTON, PLAY RAW		1
	1-16	★81-HRE-209-119	SPACER, SW B		1
	1-17	★81-HRE-208-019	SPACER, SW A		1
	1-18	★81-HRE-202-019	CHASSIS, TUNER		1
	1-19	★81-HRE-203-119	GEAR, IDLER		1
	1-20	★81-HRE-008-119	KNOB, ROTARY TUNER		1
	1-21	★81-HRE-011-019	POINTER, TUNER		1
	1-22	★81-HRE-211-019	SHIELD, STATIC		1
	1-23	★84-506-028-119	KNOB, VOLUME		1
	1-24	★81-HRE-204-119	GEAR, TUNER-CAP		1
	1-25	★81-HRE-206-019	BATTERY-CONTACT -		1
	1-26	★81-HRE-205-019	BATTERY-CONTACT +		1
	1-27	---	LABEL, DBP(YZ)		1
	1-28	★81-HRG-009-219	CABINET, REAR[B]	*	1
	1-28	★81-HRG-023-019	CABINET, REAR[L]	*	1
	1-28	★81-HRG-032-019	CABINET, REAR[N]	*	1
	1-28	★81-HRG-011-019	CABINET, REAR[ST]	*	1
	1-28a	81-HRG-025-019	LID, BATTERY[L]	*	1
	1-28a	81-HRG-034-019	LID, BATTERY[N]	*	1
	1-28a	82-HRC-004-019	LID, BATTERY[ST]	*	1
	1-29	★81-HRE-222-019	MYLAR, 14-28-0.5		1
	1-30	★81-HRE-009-219	KNOB, SLIDE CONTROL		2
	1-31	★81-HRE-010-019	KNOB, SLIDE CONTROL B		1
	1-32	★81-HRG-006-019	LABEL, SPEC(Y, Y1, YZ)	*	1
	1-32	★81-HRG-010-019	LABEL, SPEC[B, L, ST](YU)	*	1
	1-32	★81-HRG-008-019	LABEL, SPEC(YJ1)	*	1
	1-32	★81-HRG-036-019	LABEL, SPEC[N](YU)	*	1
	1-33	81-HRE-214-019	CUSHION, BATTERY		1
	1-34	81-HRE-004-019	LID, BATTERY[B]		1

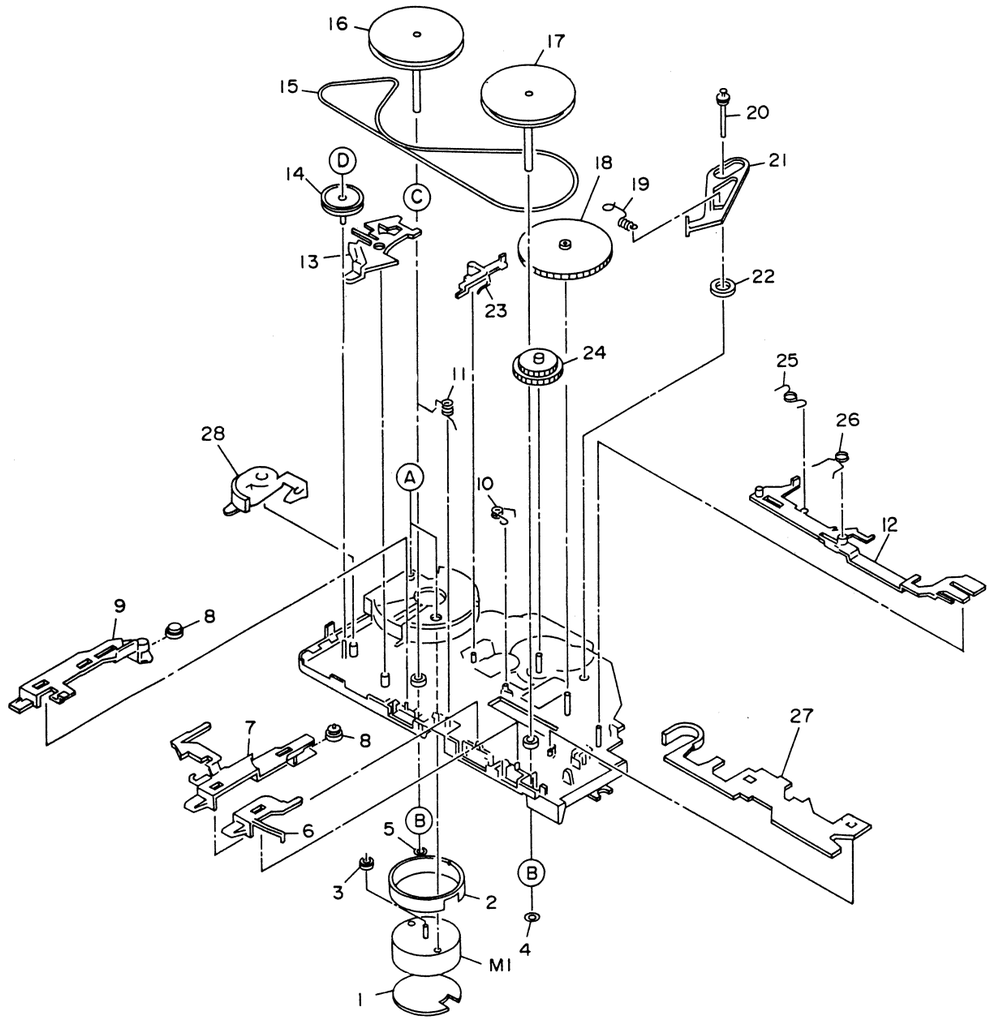
EXPLODED VIEW – 2



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	2-1～3-28	★M8-0ZM-291-019	0ZM-2N MECHANISM ASSY		1
	2-1	---	CHASSIS, MAIN		1
	2-2	---	LEVER, BUTTON PLAY		1
	2-3	---	LEVER, PINCH		1
	2-4	★80-ZM2-228-110	PINCH ROLLER ASSY		2
	2-5	---	LEVER, PLAY FR		1
	2-6	★80-ZM2-224-010	GEAR, PLAY FR		1
	2-7	★80-ZM2-225-010	GEAR, MIRROR		1
	2-8	★80-ZM2-222-010	TABLE, REEL F		1
	2-9	★80-ZM2-223-010	TABLE, REEL R		1
	2-10	---	C-SPRING, BT		1
	2-11	---	T-SPRING, DEFEND AUTO		1
	2-12	---	T-SPRING, BT		1
	2-13	---	C-SPRING, BUTTON PLAY		1
	2-14	---	ADHESIVE-SHEET, FLEX		1

EXPLODED VIEW – 3

REF.NO.	PART NO.	DESCRIPTION
A	87-264-528-310	V+1.7-3.5 CR
B	87-067-784-010	PW2.07-3-0.2
C	80-ZM2-595-019	LM2.1-4.5-0.05
D	87-ZM2-569-019	PW0.9-3-0.25



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY.
	2-1～3-28	★M8-0ZM-291-019	0ZM-2N MECHANISM ASSY		1
	3-1	---	BOARD, SHIELD B		1
	3-2	---	BOARD, SHIELD		1
	3-3	★80-ZM2-232-010	PULLEY, MOTOR		1
	3-4	★87-067-605-010	SHEET, SOMA 3.5-1.45-0.3		1
	3-5	★87-067-783-010	SHEET, SOMA		1
	3-6	---	LEVER, BUTTON STOP		1
	3-7	---	LEVER, BUTTON REW		1
	3-8	★80-ZM2-256-110	GEAR, FF REW		2
	3-9	---	LEVER, BUTTON FF		1
	3-10	---	T-SPRING, PLAY FR		1
	3-11	---	T-SPRING, BUTTON FF REW		1
	3-12	---	LEVER, DIR		1
	3-13	---	BUTTON, DIR		1
	3-14	★80-ZM2-231-010	PULLEY, BELT		1
	3-15	★80-ZM2-240-010	BELT, SQ 0.75-244		1
	3-16	80-ZM2-262-019	FLYWHEEL FM ASSY		1
	3-17	80-ZM2-216-010	FLYWHEEL R ASSY		1
	3-18	★80-ZM2-227-210	GEAR, AUTO		1
	3-19	---	E-SPRING, LEVER AUTO		1
	3-20	---	SHAFT, REEL		1
	3-21	---	LEVER, AUTO		1
	3-22	---	SHEET, AUTO		1
	3-23	---	LEVER, SWITCH		1
	3-24	★80-ZM2-218-810	SLIP GEAR ASSY		1
	3-25	---	T-SPRING, DIR		1
	3-26	---	T-SPRING, PINCH		1
	3-27	---	LEVER, LOCK		1
	3-28	---	BUTTON, MODE CHG		1